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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,811	10/01/2003	Kohji Kotani	WATK : 260	8789
6160	7590	10/06/2004	EXAMINER	
PARKHURST & WENDEL, L.L.P. 1421 PRINCE STREET SUITE 210 ALEXANDRIA, VA 22314-2805			MORILLO, JANEL COMBS	
			ART UNIT	PAPER NUMBER
			1742	

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/674,811	Applicant(s) KOTANI ET AL.	
	Examiner Janelle Combs-Morillo	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 2-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 9-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>022504</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1, 9-14, drawn to aluminum alloy composition, classified in class 148, subclass 417.
  - II. Claims 2-8, drawn to method of working an Al-Mg-Si alloy, classified in class 148, subclass 552.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by a materially different process such as rolling.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

2. During a telephone conversation with Chuck Wendel on August 30, 2004 a provisional election was made with traverse to prosecute the invention of I, claims 1, 9-14. Affirmation of this election must be made by applicant in replying to this Office action. Claims 2-8 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Schwelling et al (US 4,525,326).

Schwelling teaches examples of Al-Mg-Si alloys that fall within the presently claimed alloying ranges (see Table at column 2, ex. 3H, 4H, 5H1, 5H2). For instance, ex. 4H consists of (in weight%): 1.00% Si, 0.77% Mg, 0.20% Fe, 0.05% Cu, 0.90% Mn, which falls within the composition ranges in independent claim 1. Additionally, Schwelling teaches that said alloy can be hot formed by extrusion, rolling, or forging (column 1 lines 11-12, column 2 line 36).

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by “Aluminum and Aluminum Alloys” p 22-23, 62, 72-73.

“Aluminum and Aluminum Alloys” teaches a number of Al-Mg-Si 6xxx series aluminum alloys that substantially overlap or touch the boundary of the presently claimed alloying ranges

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of Mg, Si, Cu, Mn, Cr, and Ti, including 6151, 6351, 6066, as well as 6007, 6009, 6010, 6111, 6012, X6013, 6014, 6261, 6070, 6081, and 6082 (see "Aluminum and Aluminum Alloys" p 22-23, Table 2).

Because "Aluminum and Aluminum Alloys" teaches (narrow) ranges that overlap the instant ranges "with sufficient specificity" (see MPEP 2131.03), it is held that "Aluminum and Aluminum Alloys" anticipates the instant claims.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwelling et al (US 4,525,326).

Concerning claims 9-11, Schwelling does not mention forming said Al-Mg-Si alloy into a vehicular suspension part, a frame for a vehicle, or a part for an engine. However, it would have been obvious to one of ordinary skill in the art to make a structural part, such as a suspension part for a vehicle, etc., out of the Al-Mg-Si alloy taught by Schwelling, because Schwelling teaches that said Al-Mg-Si alloy has excellent mechanical strength (column 1 lines 55-58).

Concerning the process steps of product by process claims 9-11, Schwelling teaches that said alloy can be hot formed by extrusion, rolling, or forging (column 1 lines 11-12, column

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2 line 36). Schwelling does not mention the presently claimed step of a) casting said alloy prior to forging, or b) the instant rough forging followed by finish forging and clipping flash. However concerning items a) and b), it is well settled that a product-by-process claim defines a product, and that when the prior art discloses a product substantially the same as that being claimed, differing only in the manner by which it is made, the burden falls to applicant to show that any process steps associated therewith result in a product materially different from that disclosed in the prior art. See MPEP 2113, *In re Brown* (173 USPQ 685) and *In re Fessman* (180 USPQ 524) *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Because the Al-Mg-Si alloy product taught by Schwelling falls within the presently claimed alloying ranges, and because applicant has not shown that the instant product by process is materially different than product by the prior art, it is held that Schwelling has created a prima facie case of obviousness of the presently claimed invention.

8. Claims 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over “Aluminum and Aluminum Alloys” p 22-23, 62, 72-73.

“Aluminum and Aluminum Alloys” teaches alloys 6066, 6151, and 6351 can be worked by forging (p. 62), and said alloys are typically used as: forgings for welded structures, intricate forgings for auto parts, and heavy duty structures, respectively. It would have been obvious to one of ordinary skill in the art to make a structural part, such as a suspension part for a vehicle, etc., out of the Al-Mg-Si alloys taught by “Aluminum and Aluminum Alloys”, because “Aluminum and Aluminum Alloys” teaches that said Al-Mg-Si alloys are useful for forging into structural auto parts, and have excellent mechanical strength (Table 9, p 72-73).

Concerning the process steps of product by process claims 9-11, see discussion of product by process claims above. Because the Al-Mg-Si alloy product taught by "Aluminum and Aluminum Alloys" falls within the presently claimed alloying ranges, and because applicant has not shown that the instant product by process is materially different than product by the prior art, it is held that "Aluminum and Aluminum Alloys" has created a prima facie case of obviousness of the presently claimed invention.

Concerning the mechanical properties listed in claims 12-14, "Aluminum and Aluminum Alloys" teaches in Table 9 p. 73 that 6066-T6 exhibits a UTS = 395MPa, YS = 360MPa, elongation=12%, which falls within the presently claimed mechanical property ranges of UTS, YS, and elongation. Additionally, the mechanical property values listed for 6351-T6 are close approximations of the presently claimed minimums of UTS, YS, and elongation.

9. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwelling et al (US 4,525,326) and "Aluminum and Aluminum Alloys" p 684 (as a teaching reference). Schwelling is discussed in paragraphs above.

Schwelling does not teach the mechanical properties exhibited by AA6082, AA6081, or AA6009. However, "Aluminum and Aluminum Alloys" teaches on page 684 Table 80 that 6009-T6 exhibits a UTS = 345MPa, YS = 324MPa, elongation=12%, which falls within the presently claimed mechanical property ranges of UTS, YS, and elongation.

Because the teaching reference of "Aluminum and Aluminum Alloys" teaches that 6009-T6 exhibits mechanical properties within the presently claimed limits, it is held that Schwelling combined with "Aluminum and Aluminum Alloys" has created a prima facie case of obviousness of the presently claimed invention.


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***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 8:30 am- 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCM   
September 30, 2004

  
GEORGE WYSZOMIERSKI  
PRIMARY EXAMINER